



PRESS FIT AUTOMOTIVE RECTIFIER (BOSCH)

PRB501 THRU PRB506

VOLTAGE RANGE 100 to 600 Volts

CURRENT 50.0 Amperes

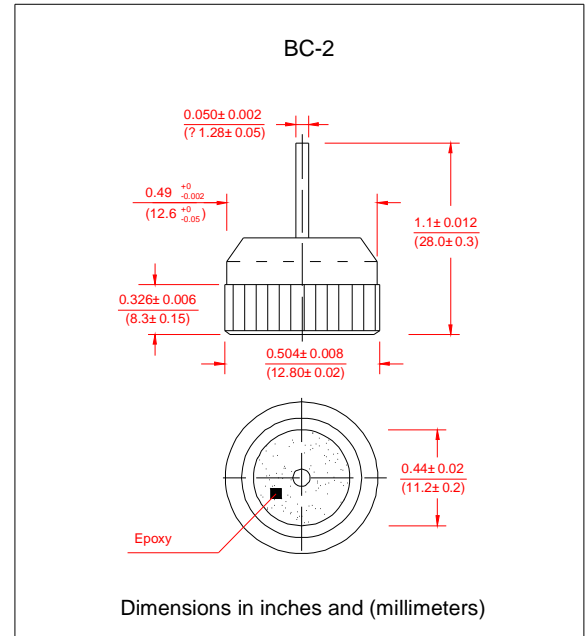
TECHNICAL SPECIFICATION:

FEATURES

- Low Leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity

MECHANICAL DATA

- Technology: Cell with Vacuum soldered
- Case: Copper case
- Polarity: As marked of case bottom
- Lead: Plated lead , solderable per MIL-STD-202E method 208C
- Mounting: Press Fit
- Weight: 0.29 ounces, 8.09 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60HZ, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	PRB501	PRB502	PRB503	PRB504	PRB506	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	300	400	600	Volts
Maximum RMS Voltage	V_{RMS}	70	140	210	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	100	200	300	400	600	Volts
Maximum Average Forward Rectified Current, At $T_c=105^\circ C$	$I_{(AV)}$	50					Amps
Peak Forward Surge Current 3.3mS single half sine wave superimposed on Rated load (JEDEC method)	I_{FSM}	600					Amps
Rating for fusing ($t < 8.3ms$)	I^2t	1494					A ² S
Maximum instantaneous Forward Voltage at 100A	V_F	1.05					Volts
Maximum DC Reverse Current at Rated $T_A=25^\circ C$ DC Blocking Voltage $T_A=100^\circ C$	I_R	5.0					UA
		450					
Typical Thermal Resistance	$R_{\theta JC}$	0.8					°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	(-65 to +175)					°C

Notes:

1. Enough heat sink must be considered in application.



PRESS FIT AUTOMOTIVE RECTIFIER (BOSCH)

PRB501 THRU PRB506

VOLTAGE RANGE 100 to 600 Volts

CURRENT 50.0 Amperes

RATINGS AND CHARACTERISTIC CURVES PRB501 THRU PRB506

FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

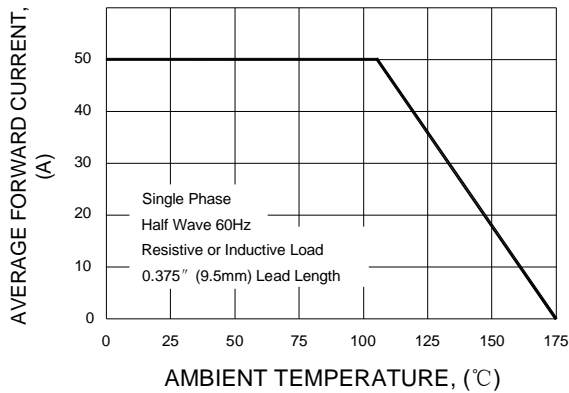


FIG.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

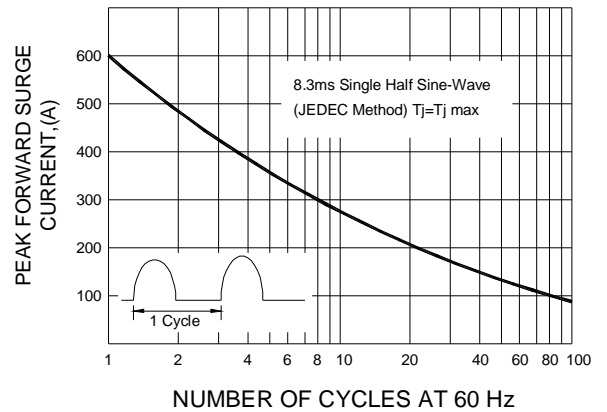


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

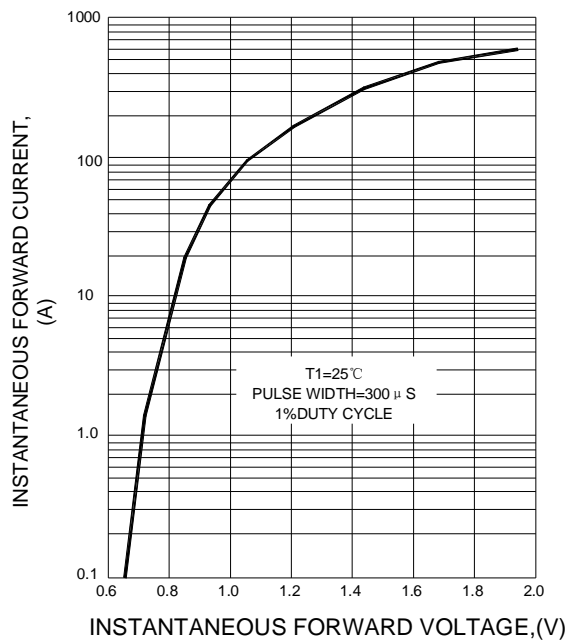


FIG.4 FORWARD POWER DISSIPATION

